

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. – 18. (Canceled)

19. (Currently Amended) A method for providing seamless fail-over of communication between a client computer and a cluster of servers, wherein the cluster of servers includes a first server and a second server and wherein the client computer includes a client application, and a network access module by which the client application communicates, wherein the network access module has a cache, the method comprising:

detecting a failure of a first Virtual Interface Architecture (VIA) protocol connection with the first server; wherein the first server maps to a combination of a VIA cluster name and a VIA server name;

sending a Server Resolution Protocol request to the cluster of servers, wherein the request includes the combination of the VIA cluster name and the VIA server name;

receiving a Server Resolution Protocol response from the second server, wherein the response includes a network address of the second server;

caching the response from the second server in the cache of the network access module of the client computer such that the cache contains a mapping between the network address of the second server and the combination of the VIA cluster name and the VIA server name; and

establishing a second Virtual Interface Architecture protocol connection with the second server by way of the network address of the second server, ~~wherein the first and second connection are over a Virtual Interface Architecture (VIA) protocol and~~ wherein the detecting, the sending, the receiving, caching, and the establishing occur by at the network access module of the client computer, transparent to the client application.

20. (Canceled)

21. (Previously Presented) The method of claim 20, wherein the establishing the second connection comprises retrieving the network address of the second server from the cache.
22. (Previously Presented) The method of claim 21, further comprising verifying that the second server maps to the server name.
23. (Previously Presented) The method of claim 22, wherein verifying that the second server maps to the server name comprises verifying that the second server is responsive to the server name.
24. (Previously Presented) The method of claim 20, further comprising purging the cache prior to caching the response from the second server.
25. (Previously Presented) The method of claim 19, wherein the request is sent by User Datagram Protocol (UDP).
26. (Previously Presented) The method of claim 19, wherein the first server and second server store and retrieve relational data by way of Structured Query Language (SQL) commands.
27. (Previously Presented) The method of claim 19, wherein the first server is designated as active and the second server is designated as passive.
28. (Previously Presented) The method of claim 27, wherein the second server periodically sends a keep-alive message to the first server.
29. (Previously Presented) The method of claim 28, wherein the second server assumes designation as active when the first server fails to response to the keep-alive message.
30. (Previously Presented) The method of claim 19, wherein the response contains a plurality of port numbers, wherein each port number corresponded to a different communications protocol.

31. (Previously Presented) The method of claim 19, wherein the first connection and the second connection comprise VIA formatted packets.

32. (Currently Amended) A computer readable storage medium, for providing seamless fail-over of communication between a client computer and a cluster of servers, wherein the cluster of servers includes a first server and a second server and wherein the client computer includes a client application and a network access module by which the client application communicates, wherein the network access module has a cache, the computer readable storage medium including computer executable instructions to perform the method comprising:

detecting a failure of a first Virtual Interface Architecture (VIA) protocol connection with the first server; wherein the first server maps to a combination of a VIA cluster name and a VIA server name;

sending a Server Resolution Protocol request to the cluster of servers, wherein the request includes the combination of the VIA cluster name and the VIA server name;

receiving a Server Resolution Protocol response from the second server, wherein the response includes a network address of the second server;

caching the response from the second server in the cache of the network access module of the client computer such that the cache contains a mapping between the network address of the second server and the combination of the VIA cluster name and the VIA server name; and

establishing a second Virtual Interface Architecture protocol connection with the second server by way of the network address of the second server, ~~wherein the first and second connection are over a Virtual Interface Architecture (VIA) protocol~~ and wherein the detecting, the sending, the receiving, caching, and the establishing occur by at the network access module of the client computer, transparent to the client application.

33. (Canceled)

34. (Previously Presented) The computer readable storage medium of claim 32, wherein the first connection and the second connection comprise VIA formatted packets.

35. (Currently Amended) A system for providing seamless fail-over of communication with a cluster of servers, wherein the cluster of servers includes a first server and a second server, the system comprising:

a client application; ~~and~~

a network access module by which the client application communicates; and

a cache connected to the network access module,

wherein the network access module detects a failure of a first Virtual Interface Architecture (VIA) protocol connection with the first server, wherein the first server maps to a combination of a VIA cluster name and a VIA server name; sends a Server Resolution Protocol request to the cluster of servers, wherein the request includes the combination of the VIA cluster name and the VIA server name; receives a Server Resolution Protocol response from the second server, wherein the response includes a network address of the second server; caches the response from the second server in the cache such that the cache contains a mapping between the network address of the second server and the combination of the VIA cluster name and the VIA server name; and establishes a second Virtual Interface Architecture protocol connection with the second server by way of the network address of the second server, ~~wherein the first and second connection are over a Virtual Interface Architecture (VIA) protocol~~ and wherein the network access module detects, sends, receives, and establishes transparent to the client application.

36. (Canceled)

37. (Previously Presented) The system of claim 35, wherein the first connection and the second connection comprise VIA formatted packets.